

Name \_\_\_\_\_ Period \_\_\_\_\_

Geometry Unit 8 Worksheet #7 - Rectangles

For #1 – 12, ABCD is a rectangle. If  $AB = 24$ ,  $BC = 10$  and  $m\angle 1 = 50^\circ$ , find the following segments and angles.

1.  $CD =$  \_\_\_\_\_

2.  $AD =$  \_\_\_\_\_

3.  $\angle DAB =$  \_\_\_\_\_

4.  $\angle 2 =$  \_\_\_\_\_

5.  $\angle 3 =$  \_\_\_\_\_

6.  $\angle 4 =$  \_\_\_\_\_

7.  $\angle AXB =$  \_\_\_\_\_

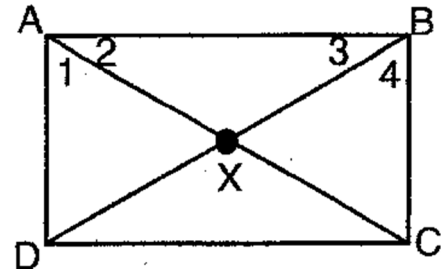
8.  $\angle BXC =$  \_\_\_\_\_

9.  $BD =$  \_\_\_\_\_

10.  $AC =$  \_\_\_\_\_

11.  $AX =$  \_\_\_\_\_

12.  $BX =$  \_\_\_\_\_



*HIJK* is a rectangle. Find the value of  $x$  and the length of each diagonal.

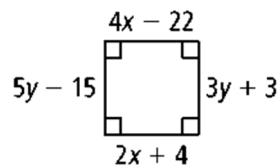
13.  $HJ = x$  and  $IK = 2x - 7$

14.  $HJ = 3x + 5$  and  $IK = 5x - 9$

15.  $HJ = 3x + 7$  and  $IK = 6x - 11$

16.  $HJ = 19 + 2x$  and  $IK = 3x + 22$

17. Use the picture to solve for  $x$  and  $y$  in the rectangle.



PQRS is a rectangle, with  $m\angle RPS = 62^\circ$  and  $QS = 18$ .

Find the following measures.

18.  $PR =$  \_\_\_\_\_

19.  $PT =$  \_\_\_\_\_

20.  $QT =$  \_\_\_\_\_

21.  $TS =$  \_\_\_\_\_

22.  $\angle PST =$  \_\_\_\_\_

23.  $\angle PTS =$  \_\_\_\_\_

24.  $\angle PTQ =$  \_\_\_\_\_

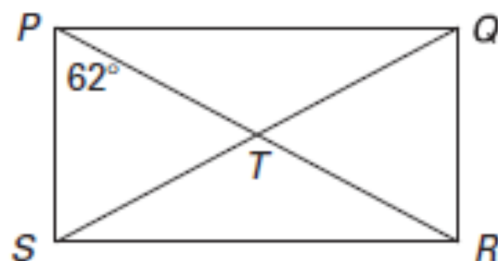
25.  $\angle TPQ =$  \_\_\_\_\_

26.  $\angle TQP =$  \_\_\_\_\_

27.  $\angle RTQ =$  \_\_\_\_\_

28.  $\angle TQR =$  \_\_\_\_\_

29.  $\angle TRQ =$  \_\_\_\_\_



30. TREC is a rectangle. Solve for  $x$  and  $y$ .

